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(54) Title: HIGHLY ACIDIC METALATED ORGANIC ACID AS A FOOD ADDITIVE

(57) Abstract: The use of a highly acidic metalated organic acid composition ("HAMO") as a food additive. The HAMO is used to reduce biological contaminants, and thus preserve, a nutriment. The HAMO is being absorbed in, or adsorbed on, a nutriment material to give a prepared nutriment.

What is claimed is:

1. A prepared nutriment comprising:
a nutriment material; and
a solution or suspension of a highly acidic metalated organic acid
5 (“HAMO”) absorbed therein or adsorbed thereon.
2. The prepared nutriment of claim 1, wherein the HAMO
comprises a monovalent or polyvalent cation, an organic acid, and an anion of a
strong oxyacid;
wherein the HAMO has an acidic pH value and an acid
10 normality value, wherein the HAMO is less corrosive to a ferrous metal than is
a solution of a mineral acid having the same acidic pH value as that of the
HAMO, and wherein the HAMO is more biocidal than a mixture of the organic
acid and a metal salt of the organic acid which mixture having the same acid
normality value as that of the HAMO.

3. The HAMO of claim 2, wherein the monovalent cation comprises an ion of a Group IA element.
4. The HAMO of claim 2, wherein the polyvalent cation comprises an ion of a Group IIA element, but not beryllium.
- 5 5. The HAMO of claim 2, wherein the polyvalent cation comprises an ion of a Group IIIA element, but not boron.
6. The HAMO of claim 2, wherein the polyvalent cation comprises an ion of a metal of the first transition series.
7. The HAMO of claim 2, wherein the polyvalent cation comprises an ion of magnesium, calcium, iron (II), copper, or zinc.
- 10 8. The HAMO of claim 2, wherein the polyvalent cation comprises an ion of lead, bismuth, or tin.
9. The HAMO of claim 2, wherein the organic acid comprises a carboxylic acid or an acidic vitamin.
- 15 10. The HAMO of claim 9, wherein the acidic vitamin comprises vitamin C.
11. The HAMO of claim 9, wherein the carboxylic acid comprises a monocarboxylic acid, a dicarboxylic acid, or a tricarboxylic acid.
12. The HAMO of claim 2, wherein the organic acid comprises acetic acid, lactic acid, formic acid, or propionic acid.
- 20 13. The HAMO of claim 2, wherein the organic acid comprises an amino acid having an amino group, and wherein the number of equivalents of the regenerating acid is greater than the total number of equivalents of the metal base and the amino group of the amino acid.

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